

The Office Action rejects claims 16, 18-25, 27, 29-36 and 42-54 under 35 U.S.C 103(a) as unpatentable over U.S. Patent No. 6,625,567 to McMahan, hereafter McMahan, in view of U.S Patent Publication No. 2003/0014400 to Siegel, hereafter Siegel.

This rejection is traversed.

The present application discloses a system that is an improvement over the known systems that use a filter to search for events of an industrial process in a data log of time series data. These systems also include programs that analyze the found event data and provide reports to a user. The filtering procedures used by these systems are cumbersome and time consuming. See the specification at page 1, lines 18-24.

The system of the present invention comprises a procedure in which a user inputs definitional data of the industrial process to define a data structure or skeleton in which activities of the industrial process frame one or more events thereof. See Fig. 15 and the specification beginning at page 12, line 12. Independent claims 42, 48 and 51 capture this process defining procedure by reciting an activity framing program that:

“responds to said input data to define said data structure with a plurality of activities and events of said industrial process, at least a first attribute of a first one of said activities, and at least one attribute of a first one of said events, wherein said first event is time framed by said first activity”.

The procedure further comprises responding to a request that identifies an activity and an attribute of the activity to access the data of the industrial process to retrieve data of an event framed by the activity. See Fig. 18 and the specification beginning at page 14, line 16. Independent claims 42, 48 and 51 capture this data accessing process by reciting:

“wherein said framing program further responds to a request that identifies said first activity and said first attribute of said first activity by using said data

structure to access said data of said industrial process to retrieve event data of said first event.”

McMahan discloses a system like the known systems referred to at page 1 of the specification. McMahan provides a program that automatically reads time series data from a data log and through a parsing procedure obtains event data of interest (step ST1 of Fig. 1) and then analyzes and provides reports to a user (steps ST2-ST4 of Fig. 1). McMahan does not disclose or teach the inputting of definitional data of the industrial process to define a data structure in which a “first event is time framed by said first activity”.

The Examiner contends that McMahan’s time tagged data, “which is input by from a user, is a data structure”, citing Figs. 1 and 6, column 1, lines 24-48, and column 2, lines 35-52. The column 1 citation describes a known paper feeding system that employs sensing devices that sense events of the process and a processor that automatically time tags the event data and stores it in a data log at a central location. The column 2 citation discloses that McMahan’s system uses state machines to analyze the data recorded in the data log and presents reports to a user. There is no disclosure in either of these citations of a user inputting definitional data that defines the events and activities of the industrial process as claimed in independent claims 42, 48 and 51.

The Examiner further contends that the recited activity framing program is disclosed by McMahan, citing Figs. 1 and 6, the above noted columns 1 and 2 citations, column 4, lines 55-67, and column 5, lines 1-8. The columns 4 and 5 citations describe McMahan’s step ST3 of Fig. 2, which is McMahan’s parsing process ST1 of Fig. 1. This is an automatic process in which the state machines are applied to each time entry in the data log. The columns 4 and 5 citations also describe a typical state machine for use in the Fig. 3 parsing procedure. As in the columns 1 and 2 citations, there is no mention of any input data from a user. Moreover, there is no discussion of any input data that defines a data structure in terms of activities and events of the industrial process in which an activity time frames an event. Accordingly, there is no disclosure in any of these

citations of any input of definitional data for the industrial process or of an activity framing program as claimed in independent claims 42, 48 and 51.

The Examiner contends that “said activity framing program responds to said input data to define said data structure”, citing Figs. 1 and 6. McMahan’s Fig. 1 steps automatically process the data collected by the sensors of the paper feeding process as recorded in the data log. As noted above, there is no disclosure that a user inputs any of this data. Fig. 6 presents to the user statistical measures of the data processed by steps ST1-ST3 of Fig. 1. Any data input based on the displays of Fig. 6 deals with the reports and not the input of data defining the events and activities of the industrial process. Accordingly, this contention is without merit.

The Examiner further contends that “at least a first attribute of a first one of said activities, and at least one attribute of a first one of said events, wherein said first event is time framed by said first activity’ is disclosed by McMahan, citing Fig. 3, column 4, lines 40-67, and column 5, lines 1-18. As noted above, these citations and Figs. 2 and 3 do not disclose or mention any input data from a user. Moreover, there is no discussion of any input data that defines a data structure in terms of activities and events of the industrial process in which an activity time frames an event. Accordingly, there is no disclosure in any of these citations of the activity framing program as claimed in independent claims 42, 48 and 51. Therefore, the contention of the Examiner is without merit.

The Examiner contends that McMahan’s framing program responds to a request to retrieve event data as claimed, citing column 6, lines 35-55. This citation describes the operation of McMahan’s parser in finding the event data recorded in the data log. There is no description of a request that identifies a first activity that time frames a first event and an attribute of the first activity and a program that responds to the request to access the data log to retrieve the first event. In contrast, McMahan’s system automatically operates on the data log to find events without any apparent request of the type claimed in independent claims 42, 48 and 51. Therefore, the contention of the Examiner is without merit.

For the reasons discussed above, McMahan lacks the activity framing program as recited in independent claims 42, 48 and 51.

With respect to independent claims 52-54, the Examiner admits that McMahan does not disclose the claimed “access request that is based on a data structure that comprises a plurality of activities and events of said industrial process, one or more attributes of a first one of said activities, and one or more attributes of a first one of said events, wherein said first event is framed by said first activity”. This admission is tantamount to an admission that McMahan does not disclose either the generation of the request or using the data structure to access the memory to retrieve event data of the first event. Accordingly, McMahan lacks both of the steps recited in independent claims 52-54.

With respect to independent claims 42, 48 and 51-54, the Examiner admits that McMahan does not disclose the recited activities, events and attributes. The Examiner contends that Siegel discloses “each event including of a plurality of activities and identifying activity” citing paragraphs 0014, 0021, 0022, 0097, 0112, 0114, 0267 and 0268. The Examiner contends that it would have been obvious to combine the teachings of McMahan with the teachings of Siegel.

This contention or conclusion of obviousness is without merit.

The referenced paragraphs of Siegel have been reviewed. Generally they describe that a case study comprises an episode that has an event, a character profile and optionally a resource. Each event comprises one or more activities. The activities include “survey activities, discussion forum activities, quiz activities, computer facilitated practice activities, and point-of-view activities.” Notably none of the episode, event, character profile, resource, or activity is disclosed as data being stored as time tagged data, which is what McMahan’s system analyzes. The Examiner has not specifically pointed out how one skilled in the art would modify McMahan’s system with Siegel’s

episode data to provide McMahan's lack of the activity framing program recited in independent claims 42, 48 and 51. Because of this, the Examiner has not made a prima facie case of obviousness.

Siegel describes a system and method for case study instruction for the field of education, in which one or more learners through a computer network execute the case studies. Siegel's field of education is non-analogous to McMahan's art of control and monitoring of industrial processes. Therefore, the combination of McMahan with Siegel is improper.

The Examiner contends that motivation is based on modifying McMahan to provide "a valuable alternative for case study instruction based on repetitious problem solving practice (Siegel's 0022), thereby, helping to learn how to review the event's content and to more fully understand the situation (Siegel's section 0112 and 0114)."

This contention is without merit. One of ordinary skill in the art would have no motivation to apply case study learning to McMahan's industrial process monitoring system. McMahan's system is based on a program that automatically without user input analyzes the process data collected by the sensors and stored in a data log. McMahan's user is interested only in statistical reports. Siegel's case study system is based on the case studies being executed by learners through a computer network, who execute the case studies.

The Office Action suggestion to use McMahan in combination with Siegel is improperly based on the hindsight of Applicants' disclosure. Such hindsight reconstruction of the art cannot be the basis of a rejection under 35 U.S.C. 103. The prior art itself must suggest that modification or provide the reason or motivation for making such modification. In re Laskowski, 871 F.2d 115, 117, 10 USPQ 2d 1397, 1398-1399 (CAFC, 1989). "The invention must be viewed not after the blueprint has been drawn by the inventor, but as it would have been perceived in the state of the art that existed at the time the invention was made." Sensonic Inc. v. Aerosonic Corp. 38 USPQ 2d 1551,

1554 (CAFC, 1996), citing Interconnect Planning Corp. v. Feil, 774 F. 2d 1132, 1138, 227 USPQ 543, 547 (CAFC, 1985).

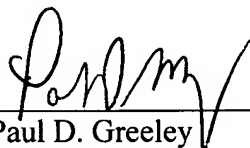
For the reasons set forth above, it is submitted that the rejection of claims 16, 18-25, 27, 29-36 and 42-54 under 35 U.S.C. 103(a) is erroneous and should be withdrawn.

It is respectfully requested for the reasons set forth above that the rejection under 35 U.S.C. 103(a) be withdrawn, that claims 16, 18-25, 27, 29-36 and 42-54 be allowed and that this application be passed to issue.

For the reasons set forth above, it is submitted that this amendment places the application in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and passed to issue. If this amendment is deemed to not place the application in condition for allowance, it is respectfully requested that it be entered for the purpose of appeal.

Respectfully Submitted,

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